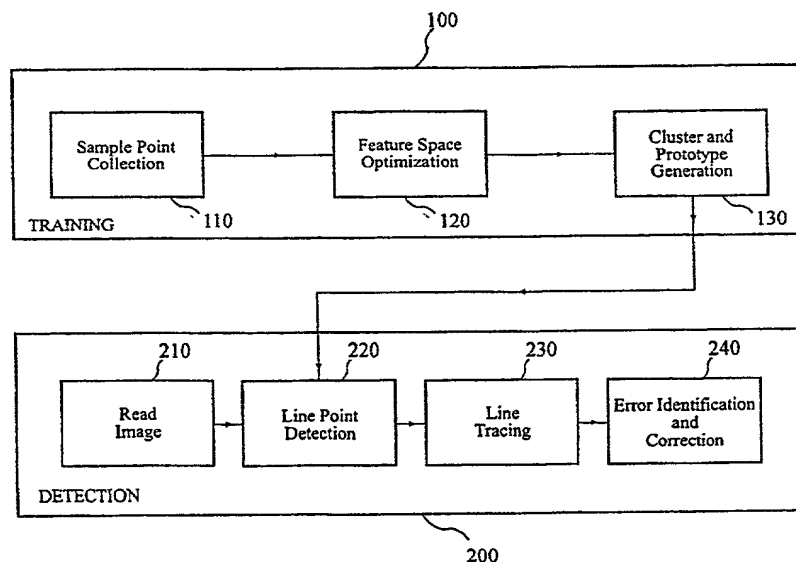




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : G06T 5/00	A1	(11) International Publication Number: WO 00/16264 (43) International Publication Date: 23 March 2000 (23.03.00)
(21) International Application Number: PCT/SG98/00072 (22) International Filing Date: 16 September 1998 (16.09.98) (71) Applicant (for all designated States except US): KENT RIDGE DIGITAL LABS [SG/SG]; 21 Heng Mui Keng Terrace, Singapore 119613 (SG). (72) Inventors; and (75) Inventors/Applicants (for US only): WU, Jian, Kang [CN/SG]; Blk 51, Teban Gardens Rd #06-565, Singapore 600051 (SG). ZHANG, Weiming [CN/SG]; Blk 407, Clementi Ave. 1, #11-54, Singapore 120407 (SG). LI, Yiqun [CN/SG]; Blk 216, Jurong East Street, 21 #02-511, Singapore 600216 (SG). DONG, Ziqiang [CN/SG]; Kent Ridge Digital Labs, 21 Heng Mui Keng Terrace, Singapore 119613 (SG). (74) Agent: GREENE-KELLY, James, Patrick; Lloyd Wise, Tanjong Pagar, P.O. Box 636, Singapore 910816 (SG).		(81) Designated States: SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.

(54) Title: LINE OBJECT VECTORIZATION IN COLOUR/GRAYSCALE IMAGES



(57) Abstract

A method for the vectorization of line objects in a colour or grayscale image is disclosed which comprises the steps of: (a) collecting sample data of line points on line objects within said image, and extracting multiple features from the collected sample data to represent characteristics of the line points, (b) grouping said data into a plurality of clusters in a multi-dimensional feature space, each said cluster comprising a plurality of line points having feature measures within a selected criteria set, (c) detecting further line points by matching image points to said clusters and rejecting image points not falling within any cluster, (d) performing a line tracing operation based on the detected line points and features, and (e) identifying and correcting possible errors.